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ABSTRACT

A study investigated the nature, dynamics, and scope of the induction process for beginning vocational teachers. Ten purposefully selected groups of beginning vocational teachers from eight different states participated in nominal group technique sessions. Two groups were selected for intensive follow-up for case study. A mail survey of a stratified sample (n=625) of all first-year vocational teachers in the United States was conducted near the end of the 1989-90 school year; 352 usable responses were received. Findings from the qualitative research indicated that teacher education certified (TEC) teachers primarily noted problems related to students. Nonteacher education certified (NTEC) teachers tended to focus more on the facilities and materials. Case study analyses confirmed differences in the nature of problems faced by TEC and NTEC teachers. The positive experiences identified were focused predominantly on students; case study analyses confirmed the results. Findings from the national survey showed that (1) only 25 percent of respondents were involved in assistance programs but over half had a mentor or buddy teacher assigned; (2) two items with the highest perceived impact rating dealt with curriculum and availability of curriculum guides; and (3) assistance items rated as "major" impact were among the most frequently reported. Recommendations included assignment of a mentor or buddy, provision of curriculum guides, extra assistance for teachers taken from industry, and thorough orientation. (18 references) (YLB)

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DYNAMICS OF THE INDUCTION PROCESS FOR BEGINNING VOCATIONAL TEACHERS

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DYNAMICS OF THE INDUCTION PROCESS FOR BEGINNING VOCATIONAL TEACHERS

Abstract

The authors report the results of a range of both qualitative and quantitative research into the dynamics of the induction process as experienced by beginning vocational teachers. Their national study indicates that in spite of the growing recognition of the importance of induction assistance for beginning teachers, vocational teachers are generally not being served by such programs. They report differences in the assistance needs of those beginning vocational teachers entering the profession directly from industry as compared to those completing teacher education programs. They provide a number of specific recommendations to assist beginning vocational teachers.

DYNAMICS OF THE INDUCTION PROCESS FOR BEGINNING VOCATIONAL TEACHERS

As Goodlad (1984) pointed out, vocational education teachers represent a major portion of the faculty in public secondary schools in this country. The National Assessment of Vocational Education (1988) reveals that 97 percent of all public school students in America enroll in at least one vocational education course and that 20 percent of all coursework taken by U. S. high school graduates is in vocational education.

Large numbers of vocational teachers traditionally have been certified based on occupational experience rather than completion of a teacher education degree program (Finch & O'Reilly, 1988). Beyond that, the growing reliance on alternative certification to fill U. S. public school classrooms means that more and more teachers will be entering teaching with backgrounds much like those of vocational teachers certified on the basis of technical expertise rather than teacher education.

Research Questions

The broad purpose of this research was to investigate the nature, dynamics, and scope of the induction process for beginning vocational teachers. A number of qualitative and quantitative procedures were used to address that purpose. This paper will report the results of that investigation into the following research questions:

1. What kinds of positive and negative induction experiences do beginning vocational teachers have?
2. What kinds of induction assistance do beginning vocational teachers perceive that they need?
3. What kinds of induction assistance do beginning vocational teachers receive?

4. Do the experiences of beginning vocational teachers differ for those whose certification is based on completion of traditional teacher education programs (TEC) as opposed to those entering teaching from non-teacher education certification (NTEC) routes (i.e., alternative or vocational certification)?

Perspectives and Theoretical Framework

For decades educational leaders and scholars have recognized the beginning teacher's need for help in making the transition into the profession (Conant, 1963). There is a growing consensus in the education community that induction assistance programs are needed to facilitate that process (Camp & Heath, 1988; Huling-Austin, Odell, Ishler, Kay, & Edelfelt, 1989; Reinhartz, 1989). If induction programs for beginning teachers are to be planned and structured with consideration of the realities of the process, then they should be based on appropriate research rather than mere personal experiences and professional judgements.

Over the years, much research has been conducted to examine the induction process of teachers. In general, that research has been limited to beginning academic teachers in traditional classrooms, particularly elementary teachers. It has dealt primarily with novices coming from traditional teacher education backgrounds as typified by Bullough (1988) and Wildman and Niles (1987). There has been negligible attention paid in the educational research literature to the induction process for teachers entering the profession through alternative and vocational certification routes.

Fuller (1969) reported work that provided a framework for looking at preservice teacher education and the early experiences of beginning teachers. She found that preservice teachers often had difficulty in

relating to their teacher education course work. To explain this apparent lack of "readiness," Fuller hypothesized that pre-service students and beginning teachers progress through a developmental succession of concerns that later came to be known as the self, task, and impact stages (Waters, 1985). In a still later work, Ryan (1986) added what he called fantasy as a precursor to self and renamed the stages: fantasy, survival, mastery, and impact.

Methods

This research involved a wide range of both qualitative and quantitative methods. Qualitative data collection included Nominal Group sessions, case study data, participant observations, and in-depth interviews. Quantitative data were obtained from a national survey of a stratified random sample of beginning vocational teachers. For the purposes of this study, beginning vocational teacher was defined as a person with no more than two years of classroom teaching experience. The national survey involved only teachers at the end of their first year of teaching.

Nominal Group

Ten purposefully-selected groups (5 TEC and 5 NTEC) of beginning vocational teachers from eight different states were chosen to participate. Four basic criteria were used in the selection of participants for this part of the study: source of teacher preparation, geographic location, vocational subject taught, and length of time in teaching:

* To address teacher preparation concerns, half of the groups represented teachers with teacher education certification (TEC) and half represented teachers from non-teacher education certification (NTEC) backgrounds.

* In terms of geographic location, the groups were taken to represent different regions of the country: Southeast, Midwest, Northwest, and Eastern seaboard.
* To make the results as broadly representative of vocational education as possible, in selecting each sample an effort was made to secure one representative of each of the traditional vocational education service areas: agriculture, business, health occupations, home economics, marketing, technology education, and trades and industry.
* Finally, to assure that information was gathered from beginning teachers at different stages in the induction process, groups were selected to represent teachers with from less than a week to just over two years of teaching.

All ten groups participated in nominal group technique (NGT) sessions. Four groups (2 TEC and 2 NTEC) participated in group sessions at the beginning and again at the end of their first year of teaching. Thus we collected 14 sets of NGT data for this portion of the study.

In each NGT session, the group was asked to respond to a series of open-ended questions such as "What problems did I encounter during my first year of teaching?" Each respondent was asked to generate an exhaustive list of responses. The responses of all group members were recorded in a round-robin fashion. The meanings of the responses were clarified and all group members then selected and rank-ordered the responses from the overall listing that were most important to them. Responses of the group members were then tabulated and overall group priorities were established for each of the NGT questions.

Case Study

Two of the groups were selected for intensive follow-up for case study--one was TEC, the other NTEC. They started participating in the project at about the end of the first week of their first year. The groups were from a three-state area along the Eastern seaboard to allow for project researchers to conduct intensive follow-ups for a two year period. Initially, fourteen teachers were identified and agreed to participate in the two groups -- 7 TEC and 7 NTEC. Case study analyses have been completed on only 5 of the teachers involved in the intensive follow-up. Consequently, this paper will report case study results on those.

The case-study teachers were followed-up with daily tape-recorded logs throughout their first year and weekly tape-recorded logs through their second year. We collected personality inventories, job stress data, job satisfaction, teacher demographics and background, school situation information, and other survey data. In addition we made regular visits to observe the teachers in the classroom and to interview the teachers, their principals, their students, their vocational directors, and their mentors if those existed or "buddy" teachers otherwise.

National Survey

To provide nationally-representative quantitative data, a mail survey of a stratified, random sample of all first-year vocational teachers in the United States was conducted near the end of the 1989-90 school year. The instrument was designed to collect teacher demographics and situation data, information on induction assistance needed and received, and data on the kinds of significant events that occurred during the teacher's first year.

The instrument was developed from the NGT results obtained during the first year of data collection. It was then further validated by panels of

teacher educators, experienced teachers, and beginning teachers. The instrument was then field tested using teachers from a state not selected for the sample. The Dillman Total Design Method (Dillman, 1984) was used and a 76% response rate resulted. A comparison of early and late responses as suggested by Miller and Smith (1983) showed no differences in the items selected for comparison.

To secure a nationally representative sample, the researchers selected a stratified random sample of 15 states. The states were ranked by US population based on 1980 census data (The World Almanac and Book of Facts, 1989). The states were divided into quintiles of 10 states each from largest to smallest. From each quintile, three states were selected by use of a table of random numbers. State directors of vocational education in the selected states were contacted by mail and by telephone. They assisted us in securing lists of mailing addresses of all of their states' "first year vocational teachers." In two of the states, no such lists existed according to the vocational directors, so the researchers randomly selected replacement states from the same quintiles. This process required approximately three months.

Using the tables for sample size in Hinkle, Oliver, & Hinkle (1985), with alpha = .05, effect size = .10, and power = .95, the required sample size for a two-tailed one-sample survey would be 325. Using the logic presented later in the same article, the researchers elected to oversample based on the assumption of a less than 100% response rate, so the sample size was tentatively set at 500. The number of teachers needed from each of the selected states was determined based on the proportion of the total US population living in that state in 1980. That number of teachers was then randomly selected from the respective state mailing list. In one

state, the number of beginning vocational teachers was less than the number needed, so all of the beginning vocational teachers in that state were used.

From the initial responses, it became clear within about a week that as many as 25% of the teachers had been incorrectly identified as "first year teachers" by their directors. In many cases, the teachers had simply moved from one school to another or from one state to another. To correct for that problem, a second mailing of an additional 125 surveys was made, giving a final total of n = 625. In the end, approximately 26% of the teachers had been incorrectly identified as first year teachers. The overall response rate was 76%, and the number of usable responses was 352.

Findings from Qualitative Research

Negative Experiences

Nominal Group Results. In the literature regarding beginning teachers, a major focus is on their "problems." The question on problems was asked of each of the NGT focus groups. When the highest rated problems for each of the focus groups were determined, there were both some similarities and some differences as one would expect (see Table 1, for the two highest ranked problems for each of the NGT sessions.

The teacher education certified (TEC) teachers primarily noted problems related to students: student motivation, student apathy, student behavior, relationships with students. They were also concerned with excessive time requirements of their jobs and taking their jobs home at the end of the day, see Table 1.

The non-teacher education certified (NTEC) teachers tended to focus more on the facilities and materials involved in their jobs: equipment, supplies, lab size, equipment. They were also concerned with time

problems. In addition, they expressed several concerns with their perception of being unprepared to handle certain teaching responsibilities, see Table 1.

Case Study Analyses. Case study analyses of five of the teachers (2 NTEC and 3 TEC) from the two groups who recorded daily logs throughout their first year have been completed. Those analyses confirm the differences in the nature of the problems faced by TEC and NTEC teachers suggested by the NGT data.

We found that the NTEC teachers tended to be more plagued by problems regarding curriculum and pedagogy. They also tended to be quite insecure in their relationships with other teachers in the schools at first, apparently because they perceived themselves to be professionally less well prepared that their co-workers. They had come from industrial or business settings where they were accustomed to structured settings with both resources and rewards based on productivity. The lack of structure in the school systems caused frustrations for the NTEC teachers. They were surprised by the lack of funds for things like supplies and by the lack of respect shown to teachers both by school administrators and by students. The NTEC teachers constantly expressed concern about their acceptance by other faculty as professional peers because of their lack of professional training. They actively sought to make up that perceived weakness in their backgrounds.

Table 1
Top Ranked Problems As Identified by Beginning Vocational Teachers in Nominal Group Sessions

Rank 1 Problems

Teacher Educ. Certified (TEC)	Non-Teacher Educ. Certified (NTEC)
Keeping interesting lesson plans, motivating students	Lack of orientation to the job.
Students who don't want to work, need too much attention, will not think, do not turn in assignments	Having time to develop and learn curriculum.
Unmotivated students and apathy of some students and faculty	Lack of preparation to handle discipline.
Time (hours in the day)	Lack of time.
Student behavior, disruptive students, dealing with the discipline and counseling of students	Lack of educational preparation and self confidence.
Lack of understanding school procedures and policies and boundaries of authority	Lack of training equipment, facilities, supplies, and materials.
Activities outside of teaching	Maintaining high enrollment.

Rank 2 Problems

Teacher Educ. Certified (TEC)	Non-Teacher Educ. Certified (NTEC)
Lack of money for needed equipment and purchases	Allocation of instructional time.
Discipline problems with students	Developing lesson plans for several levels of instruction in one class.
Undisciplined students	Students requiring remedial instruction in the basic skills.
Thinking about work at home too much	Combining school and home life smoothly.
Time spent on preparing lesson plans	Student misbehavior.
Thinking that every student had to like me and developing student/ teacher relationships	Being left on my own to survive.
Lack of supplies and equipment, teaching in outdated and overcrowded facility	The need for a larger lab and updated equipment.

The TEC teachers felt more self-confidence in their ability to plan and deliver instruction at first yet soon became overwhelmed by the magnitude of the challenges they were facing. They tended to be more easily frustrated by their interactions with students and less self-confident in their technical expertise than NTEC teachers. TEC teachers became easily frustrated by their own inability to manage their time adequately and seemed unable to set priorities. They lacked confidence in their ability to manage the resources they did have and were much quicker than the NTEC teachers to become discouraged and despondent. In short they exhibited a lack of experience and maturity in dealing with routine job pressures that the older NTEC teachers simply handled as a matter of course.

Positive Experiences

Nominal Group Results. In an effort to identify other experiences that teachers encountered during their first year of teaching other than problems, several questions were asked among various NGT groups in their first year of teaching. The most asked question was "What positive experiences have you encountered as a beginning teacher?"

When asked the question about positive experiences, the experiences identified were focused predominantly on students. Out of thirty top-ranked positive experiences the majority were related to students. The most positive student experiences were when the teacher could see the students grow and be motivated, and when they had gained the respect of the students. Other positive experiences were positive feedback and acceptance from the administration and peer teachers, and when they were feeling successful in the classroom. See Table 2 for the two top ranked positive experiences reported in the NGT sessions in which that question was asked.

Table 2
Top Ranked Positive Experiences As Identified by Beginning Vocational teachers in Nominal Group Sessions

Rank 1 Positive Experience	
Teacher Educ. Certified (TEC)	Non-Teacher Educ. Certified (NTEC)
Passing the "Beginning Teachers Assistance Program" (BTAP) the first time	Seeing students succeed and learn.
Positive feedback from principal and superintendent, supportive principal	Students that are learning and succeeding.
Job satisfaction	Success with new approaches/ideas in the classroom.

Rank 2 Positive Experience	
Teacher Educ. Certified (TEC)	Non-Teacher Educ. Certified (NTEC)
Success of activity	Gaining respect and obtaining positive feedback from students and co-workers.
Students that are motivated, enthusiastic, have positive attitude	A positive relationship with a supportive administration.
Seeing students succeed	Student enthusiasm and positive comments about my class.

Case Study Analyses. Again, the case study analyses confirmed the results from the nominal group and daily log analyses. The predominant source of positive events was students, with positive feedback from principals also being important. The teachers dwelled on the importance of seeing their students succeed, particularly in terms of vocational student organization (FFA, DECA, etc) competition and activities. In several cases, coaching of athletic teams was particularly rewarding to the beginning teachers.

The NTEC teachers tended to find great pleasure from learning new teaching techniques and from learning how to plan for instruction. They soon came to realize that their fellow teachers viewed them as equals and treated them with respect. With their greater experience bases, they quickly mastered the "tricks of the trade" in working within the educational bureaucracy. The TEC teachers identified very closely with their students and their accomplishments. Initially, their experiences in their education coursework and from student teaching made it easier to meet the early challenges, but that advantage was short-lived because the NTEC teachers developed their own techniques quickly out of necessity.

Findings from National Survey

Respondent Demographics

Because it involved a national stratified random sample of beginning vocational teachers, selected demographics collected by the survey will be summarized here. Of the persons who received the survey, 352 usable responses were returned. The respondents were equally divided between male and female. The vast majority were white/non-Hispanic. Only 7% were African-American and 2% were Hispanic. Sixty percent were married. Twenty-nine percent taught trades and industry, 19 percent taught business education, 19% home economics, 12 percent agriculture, 8 percent health occupations, 5 percent technology education, and 4 percent marketing. Some of the responses on the question of subject taught could not be cleanly grouped into trades and industry or technology education. It could be that those two percentages are somewhat entangled.

Of the 352 respondents, the majority were employed on 9 or 10 month contracts (62 percent.) An additional 34 percent were employed on 11 or 12 month contracts. The remainder were employed on an assortment of other

arrangements. When asked whether they expected to remain in the same position next year, 79 percent indicated yes, 8 percent expected to move to another school, and 1.4 percent expected to be out of education altogether. When the teachers were asked to rate their job satisfaction, over 73 percent indicated they were satisfied or very satisfied and 10 percent indicated they were unsatisfied or very unsatisfied. They were then asked to rate their levels of job stress. Fifty-two percent felt highly or very highly stressed while 16 percent indicated low or very low stress levels. Fifty-seven percent were certified through a teacher education degree program (TEC) and 42 percent were certified through non-teacher education routes (NTEC). For the NTEC teachers the average age was 35.6 and the average salary was $23,156. For the TEC teachers, the average age was 29.5 and the average salary was $20,907.

Availability of Assistance Programs

One of the major considerations of the study was whether the beginning vocational teachers were being served by any sort of induction assistance program, and in particular whether mentor teachers were assigned to help them. The national survey provided data useful in addressing this concern. Table 3 indicates that only 25.5% (88/345) of beginning vocational teachers reported being involved in assistance programs but that slightly over half reported having a mentor or buddy teacher assigned ((63+131)/345 = 56.2%). Only 18.3% of beginning vocational teachers (63/345) were being served both by a mentor/buddy and an organized assistance program, while 36.5% (126/345) were receiving neither form of assistance, see Table 3.

For the teachers who entered the profession through an alternative route (vocational certification based on occupational experience or a

technical degree) the picture is somewhat brighter than for the TEC teachers. A total of 66.4% ((28+71)/149) of the NTEC teachers reported an assigned mentor/buddy teacher and 28.8% (43/149) were involved in some sort of beginning teacher program. Only 18.8% (28/149) were involved with both an assistance program and an assigned mentor/buddy, while 23.5% (35/109) had neither, see Table 3.

Table 3
Numbers of Beginning Vocational Teachers Reporting Availability of Assigned Mentors and Induction Assistance Programs. (N = 345)

BTP			TEC	NTEC	TOTALS
YES	Mentor/Buddy Assigned	YES	35	28	63
		NO	10	15	25
		SUBTOTAL	45	43	88
NO	Mentor/Buddy Assigned	YES	60	71	131
		NO	91	35	126
		SUBTOTAL	151	106	257
		TOTALS	196	149	345

Notes: BTP Involved in beginning teacher program? (Yes/No)
TEC Teacher Education Certified.
NTEC Non-Teacher Education Certified.

Types of Assistance Received

The national survey included a demographics section and a list of 22 different forms of assistance that had been identified as important to beginning vocational teachers. The respondents were asked whether each of

the assistance items had occurred to them in their first year, see Table 4. Examination of their responses indicates the most frequently reported form of assistance was feedback and evaluation from the principal (76.7%). The least frequently reported form of assistance was a teacher's aide for the beginning teacher.

Each respondent was then asked to rate the impact that the assistance item had (or would have had). Further examination of Table 4 shows that the two items with the highest perceived impact rating overall both dealt with curriculum (provision of adequate materials, textbooks, and workbooks and availability of curriculum guides. The lowest rated item was orientation to the vocational student organization. Given that 2.0 is the mid-range of the scale, 21 of the 22 items were rated to have moderate to major impact. It is interesting to note that assignment of a mentor or buddy teacher was rated only as a moderate impact item overall.

A comparison of the two columns of data shows that the assistance items rated as "major" impact (2.5 or higher) were also among the most frequently reported. Of the eight items rated at impact = 2.5 or higher, six were reported to have occurred by over half of the respondents. Only one of those major impact items (extra planning period for beginning teachers) was reported at a rate substantially below the rest, at 19.8%. When a correlation coefficient was computed between the two columns (occurrence and impact), an $r = .95$ ($p < .01$) resulted, indicating a very high association.

Table 4
Frequency of Occurrence and Mean Perceived Impact Ratings of Various Forms of Induction Assistance and Correlations with Type of Certification (TEC/NTEC), for Beginning Vocational Teachers. (N = 345)

	Percent Reporting Occurrence	Corr. of % with TEC/NTEC	Mean Impact Rating	Corr. of Impact w/ TEC/NTEC
Planning time was available before school started.	66.8	.14**	2.72	-.06
Extra duties (bus, etc.) reduced for beginning teachers.	36.2	-.11	2.09	.04
A mentor or buddy teacher was provided.	60.0	-.18***	2.49	.02
An orientation on school policies was given.	71.8	.07	2.59	-.06
Curriculum guides are available for my program area.	75.1	-.00	3.01	-.05
Time was available to observe other teachers teaching.	30.4	.05	2.11	-.03
An orientation tour of school facilities was given.	55.7	.07	2.01	.03
A workshop for new teachers was held	57.9	-.07	2.30	-.09
A Vocational Student Organization orientation was held.	18.1	-.21***	1.72*	.04
An in-service on counseling students was provided.	16.2	-.04	2.10	.03
An in-service on classroom management was provided.	31.5	-.03	2.41	-.02
An in-service to explain the curriculum was provided.	20.0	-.09	2.32	-.12*
An inservice on time and stress management was provided.	24.2	.04	2.16	.02
Extra planning period was provided for beginning teachers.	19.8	-.19***	2.54	.01
My principal provided helpful evaluation and feedback.	76.7	-.03	2.78	-.09
Information on purchasing supplies & equipment was provided.	55.2	-.01	2.61	.02
Adequate materials, textbooks, & workbooks are provided.	65.3	-.06	3.06	.03
My students' parents provide support for my program.	52.5	.11*	2.49	.16**
A list of available resources and vendors was provided.	46.7	-.02	2.45	.07
A beginning teachers' handbook was provided.	50.0	-.18***	2.34	.03
Clerical support was provided for beginning teachers.	46.3	-.06	2.50	.04
A teacher's aide was provided to beginning teachers.	14.7	-.04	2.03	.03

Notes: TEC Teacher Education Certified.
NTEC Non-Teacher Education Certified.
(Coded as TEC = 1, NTEC = 0)
Impact Rating Scale:0=none,1=minor,2=moderate,3=major,4=critical
Probability: * P < .05, ** P < .01, *** P < .001

The next concern dealt with differences between teachers with (TEC) and those without (NTEC) teacher education backgrounds. A cursory examination of the data reported in Table 4, and sorted by TEC vs NTEC (not shown), indicated remarkably little difference between the two groups. Because the independent variable is source of certification and the multiple dependent variables are the responses to the occurrence and impact scales, multivariate methods offer little potential to analyze the data on a "total-model" basis. It was decided to use correlations to allow an examination of the research question. The appropriate statistics would be point biserial for the impact scale and phi coefficients for the occurred scale. In both of those, Pearson's r is the general case (Hinkle, Wiersma, and Jurs, 1985) and produces an identical correlation value. Thus, the SAS PROC CORR was used.

As the cursory examination had indicated, there was very little relationship between source of certification and either occurrence or perceived impact of any of the assistance items, see Table 4. Although 8 of the 44 coefficients were statistically significant ($p < .05$), the largest correlation was -.21, indicating what Hinkle, Wiersma, and Jurs (1985) characterize as little, if any correlation. So, even if the acceptable alpha level is adjusted to compensate for experiment-wise error, the magnitude of the relationships is still essentially trivial.

Conclusions

Vocational teachers encounter many new experiences, both positive and negative, when beginning their careers as teachers. Teachers who did not experience a traditional teacher-education program prior to teaching do not have the opportunity to experience the classroom as a teacher under someone else's close guidance and supervision. In addition, they are usually

unfamiliar with what is meant by curriculum, lesson planning, vocational student organizations, "red tape" of the school, and the misbehavior of students. In fact, in one focus group of NTEC teachers at the end of their first year of teaching, the teachers were surprised to learn that there are actually courses in which things like "lesson planning" are taught! They usually come from business and industry and are accustomed to having facilities which are characteristic of the "workplace," having the appropriate tools and materials, working in an environment where training and orientation usually take place, and dealing with people on a day-to-day basis that are close to their own ages.

Clearly teachers encounter many positive experiences, otherwise we probably would have no retention. The two major sources of positive experiences were also the teachers' two major sources of frustrations--the school system and the students. Students, predominantly at the secondary level for these teachers, are the primary a source of both sorrow and glee.

The personnel in the school system should serve as a helping hand and not as a harassment for the novice teacher. It was clear to us that most of these new teachers felt they encountered more impediments than they received assistance from the educational system. As previous researchers have consistently reported, the beginners were left on their own to do the best they could with insufficient time, knowledge, curriculum, facilities, supplies, and equipment. And, as time went by they were expected to do more, be flexible with their time, keep up their enrollments, and make sure that everyone had a good understanding of their programs. The end result was "frustration" as one focus group stated.

In spite of the growing recognition of the importance of induction assistance programs for beginning teachers, vocational teachers are

generally not being served by such programs. Slightly more non-teacher education certified than teacher-education certified teachers are involved in beginning teacher assistance programs. Even with those, however, the proportion being assisted is dismally low.

More often than not, beginning vocational teachers who have an assigned mentor or buddy teacher are not involved in any other form of organized induction assistance. It would appear that many administrators who are responsible for beginning vocational teachers at least recognize the importance of providing some sort of help to them. At the risk of seeming a bit cynical, assigning a mentor or buddy teacher appears to be a low cost step that can be taken with little involvement on the part of the administrator and without the necessity of developing and funding a broader induction assistance program.

Even the most obvious induction assistance needs are not being met by an alarming proportion of beginning vocational teachers. Provision of a curriculum guide for organizing a course that one has never taught seems so basic that it is disappointing to find almost a quarter of beginning vocational teachers not receiving one. By the end of the first year of teaching, one should reasonably expect the school principal to have visited a beginning teacher's class and provided evaluation and feedback. Even that was lacking for almost one-fourth of the respondents.

In general, the types of assistance that beginning teachers regard as important tend to be the ones that are most frequently experienced. There are two possible explanations: (1) the higher impact rating is an artifact of the frequency with which it is experienced, or (2) the more important forms of assistance are correctly perceived and provided more consistently.

We would prefer to believe the latter, but have no evidence in that direction.

For teachers with and without teacher education backgrounds there were also little practical difference in the kinds of induction assistance received or in the perceived impact of the various forms of assistance. This indicates that in spite of the obvious differences in their training and experience, little distinction is being made in the schools between teachers entering the classroom from teacher education backgrounds and from industry backgrounds.

Beginning vocational teachers regard inservice as very important--many different forms of inservice. But, very little of the specific types of inservice perceived as important (classroom management, student counseling techniques, stress and time management) is being provided. Even a beginning teachers workshop was provided to only about half of the respondents.

Finally, we received a mixed message regarding differences between the TEC and NTEC teachers. The NGT and case study results indicated substantive differences in terms of the kinds of problems encountered and by extension the kinds of assistance needed by members of the two groups of beginning vocational teachers. The literature supports that finding. Yet, the results of the national survey indicate that the induction assistance needs of beginning vocational teachers with teacher-education (TEC) backgrounds are very much like the needs of those teachers entering the classroom and laboratory directly from industry (NTEC).

Discussion

Assignment of a mentor or "buddy" teacher is an important positive step in helping a novice teacher survive the induction process. There is a

growing literature on how mentors should be selected and trained and on the kinds of things they should be called upon to do. On the other hand, simply assigning a mentor to the novice does not replace a structured induction assistance program. Moreover, it does not absolve school administrators of further responsibility to provide support and assistance to beginning teachers.

Leaders in vocational education should become more familiar with the literature regarding induction assistance. They should make a more concerted effort to provide the kinds of assistance beginning vocational teachers need to be successful during the first year or years of teaching.

Most vocational courses are not organized around the content of a textbook. On the other hand, it is likely that curriculum guides and instructional materials do exist for virtually any vocational program. In the case of the respondents to this survey, perhaps the guides and materials were actually available but the beginning teachers simply were never informed of their existence or were not told how to secure them--in which case they might as well not have existed at all. If curriculum guides and instructional materials are not available within the local school system, they are available somewhere. The beginning vocational teacher does not have the experience to know where to look or who to call. School administrators and vocational education leaders should make certain that beginning vocational teachers are aware of the existence and provided with copies of curriculum guides as well as instructional materials for their courses. The beginning vocational teacher should not be asked to design the course, find the instructional materials, and provide the instruction without assistance.

Beginning teachers need a mass of information, but if all of it is delivered at one time, "information overload" is likely to ensue. Therefore, inservice programs for beginning vocational teachers should be spread out over the year and conducted in "small doses." They should be sequenced in such a way that the most immediate needs are met first. Inservice on the curriculum is needed early as is inservice on school policies and information on purchasing. At least the curriculum inservice should be completed before school starts. Classroom management inservice should be provided early during the year.

Teacher released time is expensive and school budgets are always tight. But, if beginning teachers are to provide quality instruction, they need more planning time than experienced teachers do. That is particularly true of beginning vocational teachers because of the time necessary to purchase laboratory supplies, maintain equipment, and practice teacher-skills for demonstrations. First year vocational teachers should be given an extra planning period--if not for the entire year, at least for half of the year.

Beginning vocational teachers taken from industry, need to have the curriculum for their program explained to them prior to school with a demonstration of how to do lesson plans. They need time and close guidance prior to school start-up in the fall to prepare their curriculum, facilities, and become oriented to the school. During the first year, they need an extra planning period and no extra duties in order to have time to learn their jobs. They need to attend regular short in-service training sessions on student discipline, curriculum, program promotion, resources, and other topics. Above all, they need support, understanding, encouragement and as one group put it "an occasional pat on the head."

What do beginning vocational teachers need to make their first years of teaching more effective and enjoyable? They need a thorough orientation to the policies and procedures of school operation. They need to have a clear explanation of their duties and responsibilities. New teachers need a handbook which explains "everything a new vocational teacher needs to know." In addition, they need a helping and encouraging mentor, preferably in their own subject area, to explain, lead, and provide feedback on how they are doing. Due to the pressures that surround a beginning teacher, the mentor should not be in a position of evaluating the novice's progress or success in teaching for tenure or certification decisions.

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